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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/516,462

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EXAMINER

LAUX, JESSICA L

ART UNIT

PAPER NUMBER

3635

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/516,462	Applicant(s) IRI ET AL.	
	Examiner Jessica Laux	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/23/07, 3/19/07, 2/21/06, 12/3/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

First it should be noted that claim 5 refers to “left and right end plates” which lacks antecedent basis in the claims.

Additionally the claim language is confusing regarding the connection of the end plates the groove-type plate and the stiffener plates. The claim recites that inner surfaces of the end plates are connected to end sides of the groove-type plate, however the recitation of in lines 11-14 is confusing as it states inner surfaces of the end plates are welded to one end side and inner surfaces of the end plates are welded to the other end side (how can the inner surfaces of the plates be welded to both sides of the groove-type stiffener plate?). The claim, in lines 15-22 then recites that the outer surfaces of the end plates are welded to a corresponding stiffener plate, thus placing the end plate between the groove-type plate and the stiffener plate which is confusing as claim 4 recites that the connecting member connects the end plates together and the beginning of claim 5 states that the connecting member comprises the groove plate and stiffener plate. Also, if the end plates are between the stiffener plate and the groove plate how then does the end plate connect to the flanges as recited in claim 4?

In light of the above comments the claim will be examined as best understood, however appropriate correction/clarification is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Application 11-324129.

Regarding claim 1: Japanese patent application 11-324129 discloses a steel-framed building using section steels for a column and a beam, wherein section steels having the same cross sections are used for the column and the beam, a beam-side joint for joining an end of the column to the beam, and a column-side joint for joining an end of the beam to the column, and the same members (30) are used as both a reinforcing member disposed at a cross section of the beam as a beam-side joint, and a reinforcing member disposed at a the cross section of the column as a column-side joint (see figures 1, 3).

Regarding claim 2: Japanese patent application 11-324129 discloses a steel-framed building according to claim 1, wherein in the beam-side joint, the reinforcing member is jointed within the cross section of the beam by a bolt, and an end of the column is joined with the reinforcing member by a bolt, in the column-side joint, the reinforcing member is joined in the cross section of the column by a bolt, and an end of the beam is jointed to the reinforcing member by a bolt (see figures 1-2 and element 41).

Regarding claim 3 Japanese patent application 11-324129 discloses a joint structure of a column-side joint for joining an end of a beam to a column (see figures 1-3), wherein a reinforcing member (30) is joined in a cross section of the column by a

Art Unit: 3633

bolt (figures 1-2 and element 41), and an end of the beam is joined with the reinforcing member by a bolt (41).

Regarding claim 4: Japanese patent application 11-324129 discloses a joint structure of a column and a beam according to claim 3, the reinforcing member having end plate (31) at its opposite ends, and a connecting member (3) for connecting the end plates to each other, the end plate on one end side being joined with one of the flanges of the column by a bolt, and the end plate on the other end side being joined with the other flange of the column by a bolt (figures 1-3, element 41).

Regarding claim 7: : Japanese patent application 11-324129 discloses a steel-framed building according to claim 1, wherein a bolt-mounting hole (31A, 22) is previously provided in each of the planned portions of a plurality of beam-side joints or column-side joints preset in a longitudinal direction of the beam or column, selected one of the plurality of planned portions is employed as a beam-side joint or column-side joint of this time.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Saldana (7127862).

Regarding claim 3: Saldana discloses a joint structure of a column-side joint for joining an end of a beam to a column, wherein a reinforcing member (for example

element 40) is joined in a cross section of the column by a bolt, and an end of the beam is joined with the reinforcing member by a bolt (figures 19-23).

Regarding claim 4: A joint structure of a column and a beam according to claim 3, the reinforcing member having end plates at its opposite ends (generally at 26b), and a connecting member (extending between the ends) for connecting the end plates to each other, the end plate on one end side being joined with one of the flanges of the column by a bolt, and the end plate on the other end side being joined with the other flange of the column by a bolt (as seen in figures 19-20).

Regarding claim 5 (as best understood): A joint structure of a column and a beam according to claim-4, the connecting member having a groove-type plate (generally below 36) disposed at a central portion and stiffener plates (24b) disposed at left and right opposite sides, inner surfaces of left and right end plates being welded to opposite sides of one end side of the groove-type plate, and inner surfaces of left and right end plates being welded to opposite sides of the other end side of the groove-type plate (as seen in figures 16, 19), an outer surface of the left end plate being welded to a side of the one end side of the left stiffener plate, and an outer surface of the left end plate being welded to a side of the other end side of the left stiffener plate, an outer surface of the right end plate being welded to a side of the one end side of the right stiffener plate, an outer surface of the right end plate being welded to a side of the other end side of the right stiffener plate (as seen in figures 16, 19).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saldana (7127862).

Regarding claim 6: Saldana discloses the joint structure of a column and a beam according to claim 4 above, but does not expressly disclose that the groove-type plate has an X-shaped strengthening rib. However, it is notoriously common and well known in the art to have X-shaped strengthen ribs in support plates particularly plates used in structural applications. Therefore it would have been obvious to one of ordinary skill in the art to modify the connector of Saldana to have Xshaped stiffening ribs to provide a stronger joint connection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Laux whose telephone number is 571-272-8228. The examiner can normally be reached on Monday thru Thursday, 9:00am to 5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3633

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeanette E Chapman/
Primary Examiner, Art Unit 3633

/J. L./
Examiner, Art Unit 3635
03/07/2008